

ABSTRACT

A method is disclosed for forming a polymeric coating on a substrate surface, which method comprises the steps of activating (A) at least one monomer selected from (a) at least one polymerizable organic acid monomer comprising at least one acid group and at least one polymerizable group and (b) at least one polymerizable organic acid anhydride monomer comprising at least one acid anhydride group and at least one polymerizable group and (B) at least one polymerizable organic base monomer comprising at least one basic group and at least one polymerizable group by subjecting the monomers to a soft ionization plasma process; and depositing the activated monomers resulting from step (i) onto the substrate surface thereby forming a polymeric coating containing salts resulting from interaction between acidic and basic functional groups on side chains of the polymeric coating. Preferred polymerizable groups are alkenyl groups. Polymeric salt coatings resulting from the above method have excellent barrier properties and coatings in accordance with the present invention will enhance the hydrophilic, biocompatible, anti-fouling and controlled surface pH applications of substrates such as filtration and separations media.